

REMARKS

Claims 17-34 are pending in the application. Claims 17-18 and 34 were rejected under 35 U.S.C. § 103(a) based on U.S. Publication No. 2002/0104961 to Hoffman and U.S. Patent No. 6,597,499 to Kawano et al. ("Kawano"). Claims 20-22 were rejected under 35 U.S.C. § 103(a) based on Hoffman, Kawano and U.S. Patent No. 5,140,458 to Takagi et al. ("Takagi").

Reconsideration of the application in view of the following remarks is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 17-18 and 34 were rejected under 35 U.S.C. § 103(a) based on U.S. Publication No. 2002/0104961 to Hoffman and U.S. Patent No. 6,597,499 to Kawano et al. ("Kawano").

Hoffman describes a scanning microscope with a light source that provides laser light from a laser 7 to a specimen 25 through several optical systems 19, 21, 29 and 33. The first optical system 29 is disposed upstream of a retardation plate 31 and spreads the stimulating light beam 9 from the laser. The second optical system 33 is used for focusing. Optical systems 19 and 21 guide an exciting light beam 5 to a specimen 25. See Hoffman, paragraphs [0034] to [0035] and Fig. 1.

Kawano describes a microscope with an annular slit member for blocking all but an annulus of light. See Kawano, abstract and Fig. 3. The microscope includes an objective lens and "the annulus slit image is projected to the back focal plain 330 for the objective lens." See Kawano, column 5, lines 13-14.

Independent claim 17 of the present application recites "an optical system configured to image the optical component into a pupil of the objective and to adjust a size of an image of the optical component while maintaining the image of the optical component in the pupil of the objective." It is respectfully submitted that each of Hoffman and Kawano fail to teach or suggest this feature and this feature would not have been obvious in view of any combination of these references.

First, each of Hoffman and Kawano fail to teach or suggest a microscope with an optical component and an optical system configured "to adjust a size of an image of the optical

component,” as recited in claim 17. In contrast, Hoffman does not disclose that any of optical systems 29, 31, 19 or 21 are configured to adjust a size of an image of an optical component or of an image of the retardation plate. With respect to optical system 29, Hoffman merely states that this optical system spreads the stimulating light beam 9 from the laser. See Hoffman, paragraph [0035]. Moreover, the position of optical system 29 could not influence the image size of the retardation plate 31 because it is not between the retardation plate and optical system 23. See Hoffman, Fig. 1. With respect to optical system 33, Hoffman describes that this system is for the use of focusing light. See Hoffman, paragraph [0035]. With respect to optical systems 19 and 21, Hoffman does not describe the structure or function of these optical systems, except that they guide the light to the specimen 25. See Hoffman, paragraph [0034]. Moreover, a person of ordinary skill in the art would understand that an optical system disposed in the location of systems 19 and 21, i.e. between the gimbal mounted scanning mirror 17 and the optical system 23, would not be configured for adjusting the image size of retardation plate 31. Accordingly, Hoffman does not teach or suggest any optical systems configured to adjust a size of an image of an optical component, as recited in claim 17. With respect to Kawano, that reference merely describes a microscope with an annular slit member and projecting the annulus slit image to the back focal plain 330 for the objective lens. See Kawano, column 5, lines 13-14. Nowhere does Kawano teach or suggest an optical system configured to adjust a size of an image of an optical component, as recited in claim 17.

Moreover, both of Hoffman and Kawano fail to teach or suggest adjusting a size of an image of an optical component “while maintaining the image of the optical component in the pupil of the objective,” as recited in claim 17. The Office Action acknowledges that Hoffman does not disclose an optical system that maintains an image of an optical component in a pupil of an objective. See Detailed Action, page 3, lines 13-14. With respect to Kawano, that reference merely describes projecting an annulus slit image to the back focal plain 330 for an objective lens. See Kawano, column 5, lines 13-14, and Fig. 5. Kawano does not disclose adjusting a size of the annulus slit image while maintaining the image in the pupil of the objective. Thus, neither Hoffman nor Kawano teach or suggest adjusting the size of an image of an optical component “while maintaining the image of the optical component in the pupil of the objective,” as recited in claim 17.

Because each of Hoffman and Kawano fail to teach or suggest the above-recited features of claim 17, it is respectfully submitted that any combination of these references, to the extent proper, could not render claim 17 or its dependent claims 18, 20-22 and 34 obvious.

Claims 20-22 were rejected under 35 U.S.C. § 103(a) based on Hoffman, Kawano and U.S. Patent No. 5,140,458 to Takagi et al. ("Takagi").

Takagi describes an optical illuminating apparatus using drive systems with motors and gears for changing the magnification of the apparatus. See Takagi, abstract, column 3, and Fig. 1.

It is respectfully submitted that Takagi does not cure the deficiencies of Hoffman and Kawano with respect to rendering claim 17 unpatentable. There would have been no reason, in view of Takagi, for a person of ordinary skill in the art to have added the above-recited features of claim 17 that are missing from both Hoffman and Kawano to any combination of those references. Takagi merely describes an illuminating apparatus that uses drive systems for changing magnification. See Takagi, abstract. Thus, any combination of Hoffman, Kawano and Takagi, to the extent proper, could not render dependent claims 20-22 obvious.

Reconsideration and withdrawal of the rejection of claims 17-18 and 34 under 35 U.S.C. § 103(a) based on Hoffman and Kawano, and of claims 20-22 under 35 U.S.C. § 103(a) based on Hoffman, Kawano and Takagi, is respectfully requested.

Application No. 10/570,645
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CONCLUSION

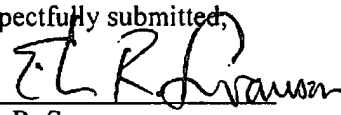
In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Commissioner is hereby authorized to charge any unpaid fees deemed required in connection with this submission, including any additional filing or application processing fees required under 37 C.F.R. §1.16 or 1.17, or to credit any overpayment, to Deposit Account No. 04-0100.

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Respectfully submitted,

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